

Abstract

Indonesia has potential resources to develop a fruit industry, but fruit rot often occurs which can cause losses due to decreased fruit quality, and the rapid spread of rot disease in other fruits. To prevent the spread of rot disease on other fruit, it is necessary to immediately sanitize. One way to help prevent this is as soon as possible the freshness of the fruit. In this study, semantic segmentation is used to identify each pixel from the U-Net model architectural image, and the attribute aware concept, by creating an attribute class from the fruit attribute. Two scenarios were implemented in the training model, the model using the image of 1 object, and the model using the image of 1, 2, and 3 objects, based on the test scenario 2, the results of mIoU 0.949 were better than scenario 1 with mIoU 0.933. .

Keywords: Fruit freshness, identification, semantic segmentation, U-Net